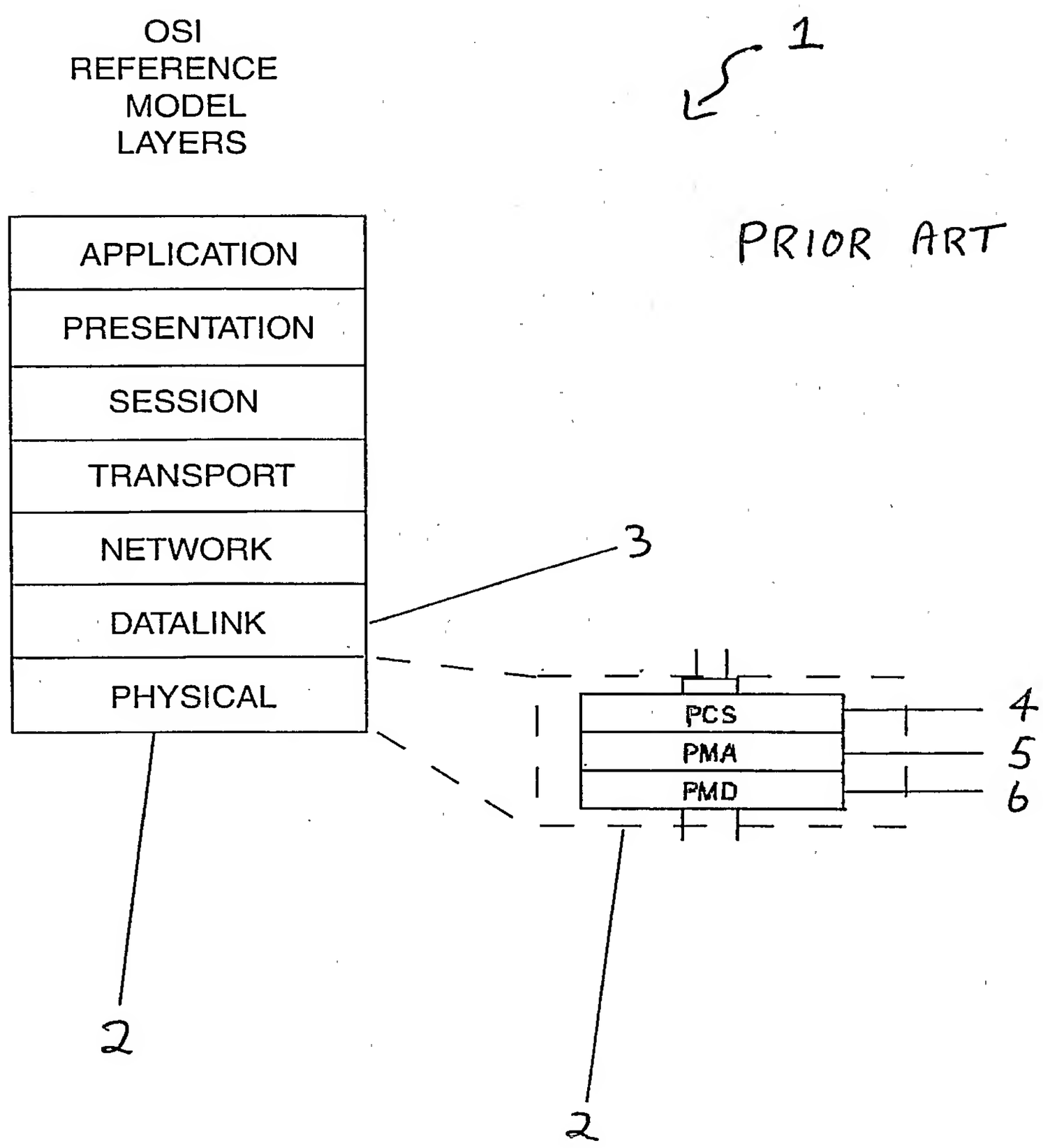
Figure 1


OSI
REFERENCE
MODEL
LAYERS
APPLICATION
PRESENTATION
SESSION
TRANSPORT
NETWORK
DATALINK
PHYSICAL
PCS
PMA
PMD
1
2
2
3
4
5
6
PRIOR ART

PRIOR ART

Figure 2

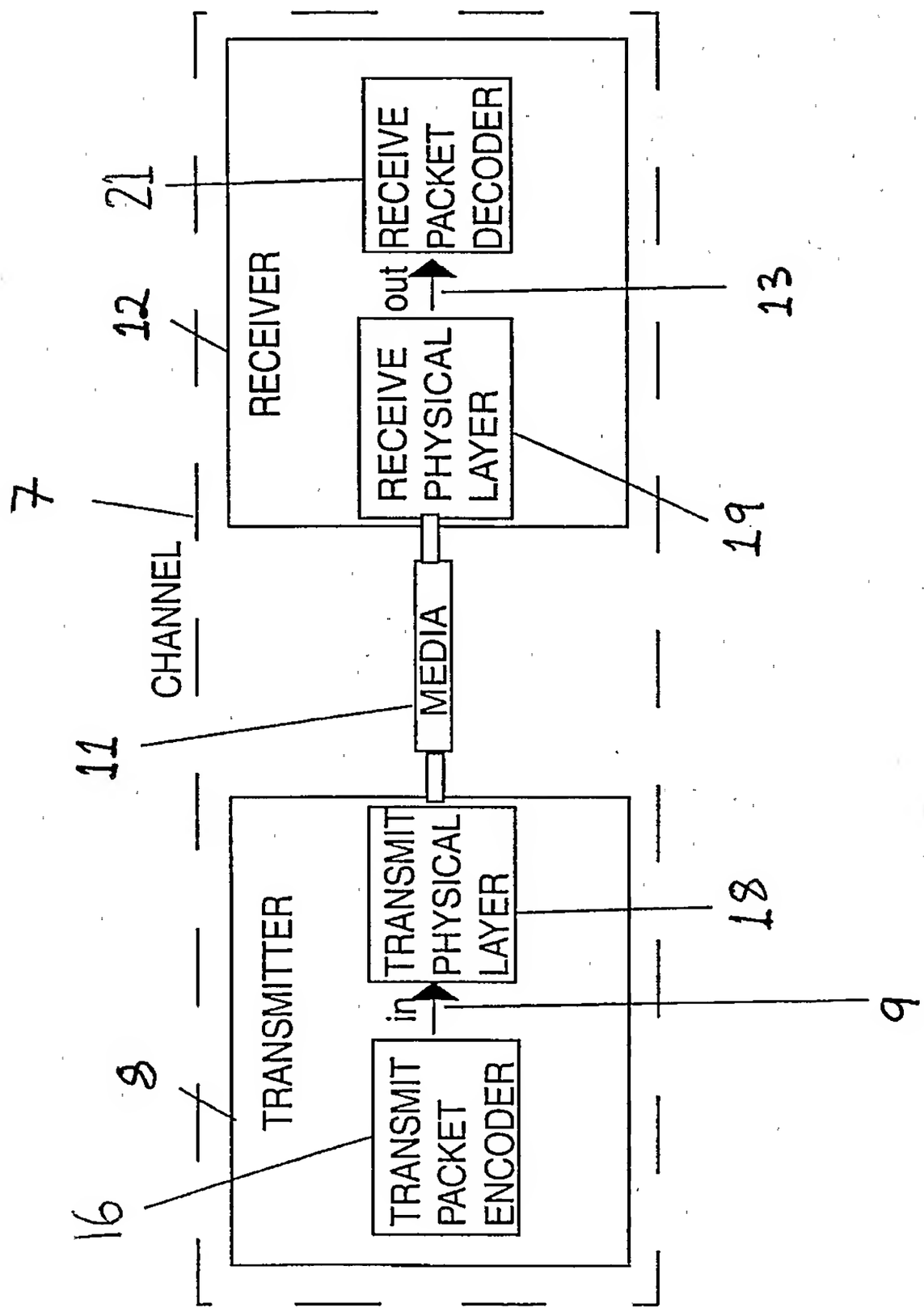


Figure 3

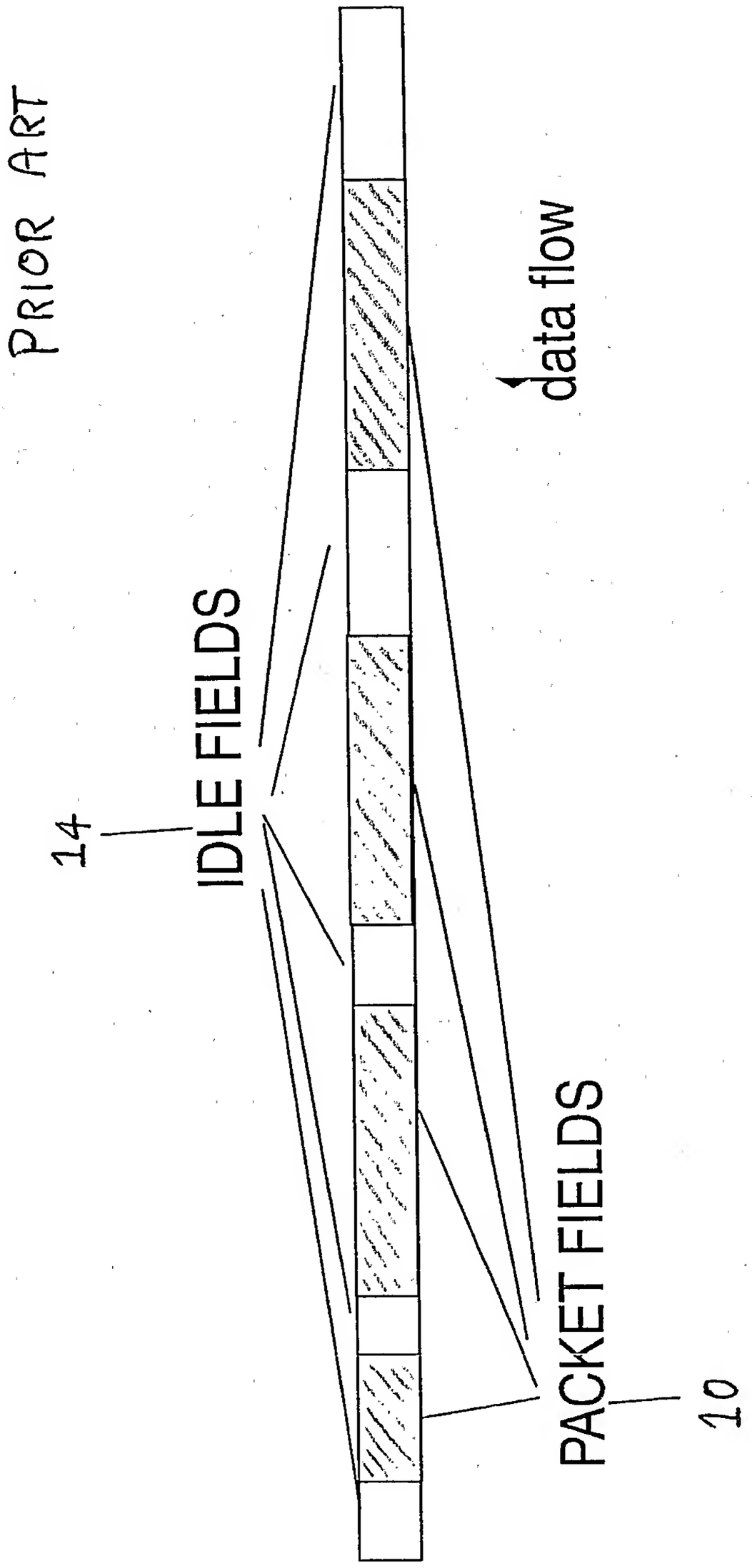
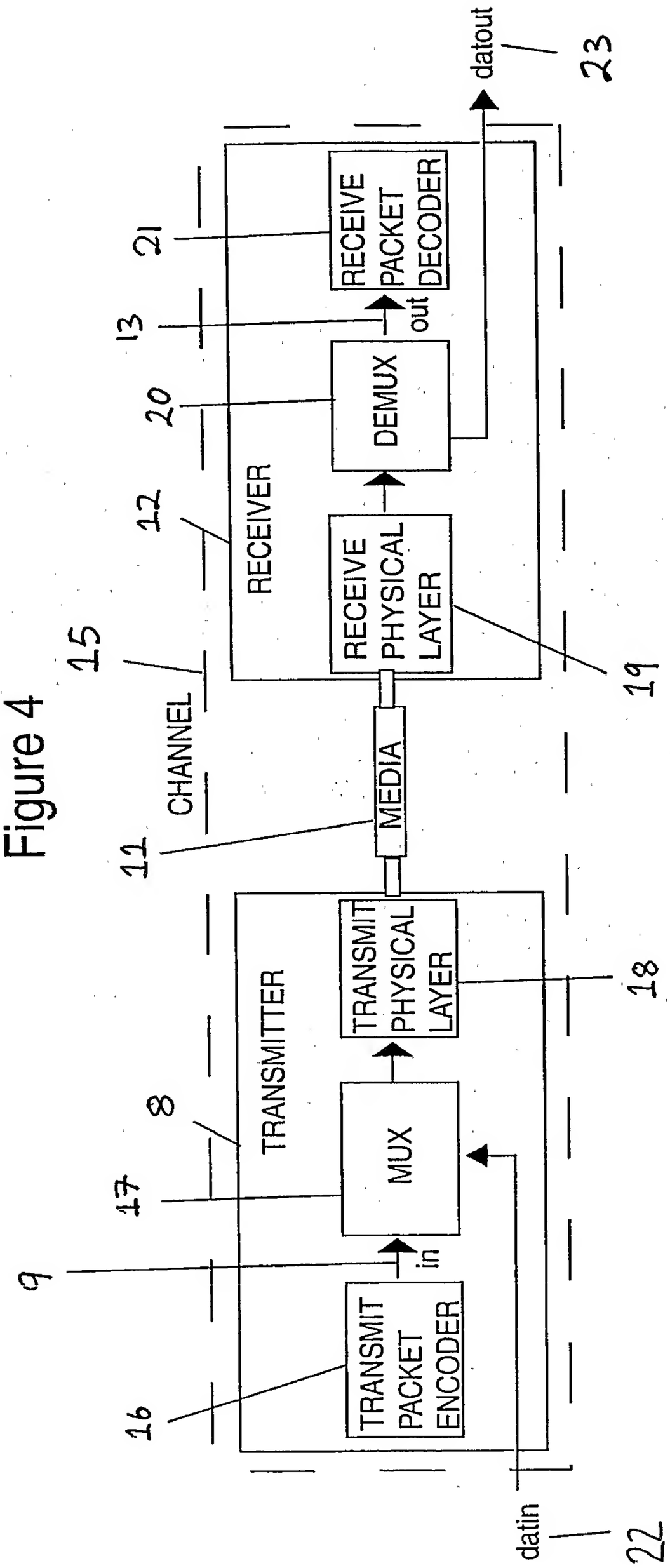


Figure 4


datout
23
RECEIVE PACKET DECODER
21
13
out
DEMUX
20
RECEIVER
12
15
RECEIVE PHYSICAL LAYER
19
CHANNEL
MEDIA
11
TRANSMIT PHYSICAL LAYER
18
TRANSMITTER
8
17
MUX
9
in
TRANSMIT PACKET ENCODER
16
datin
22

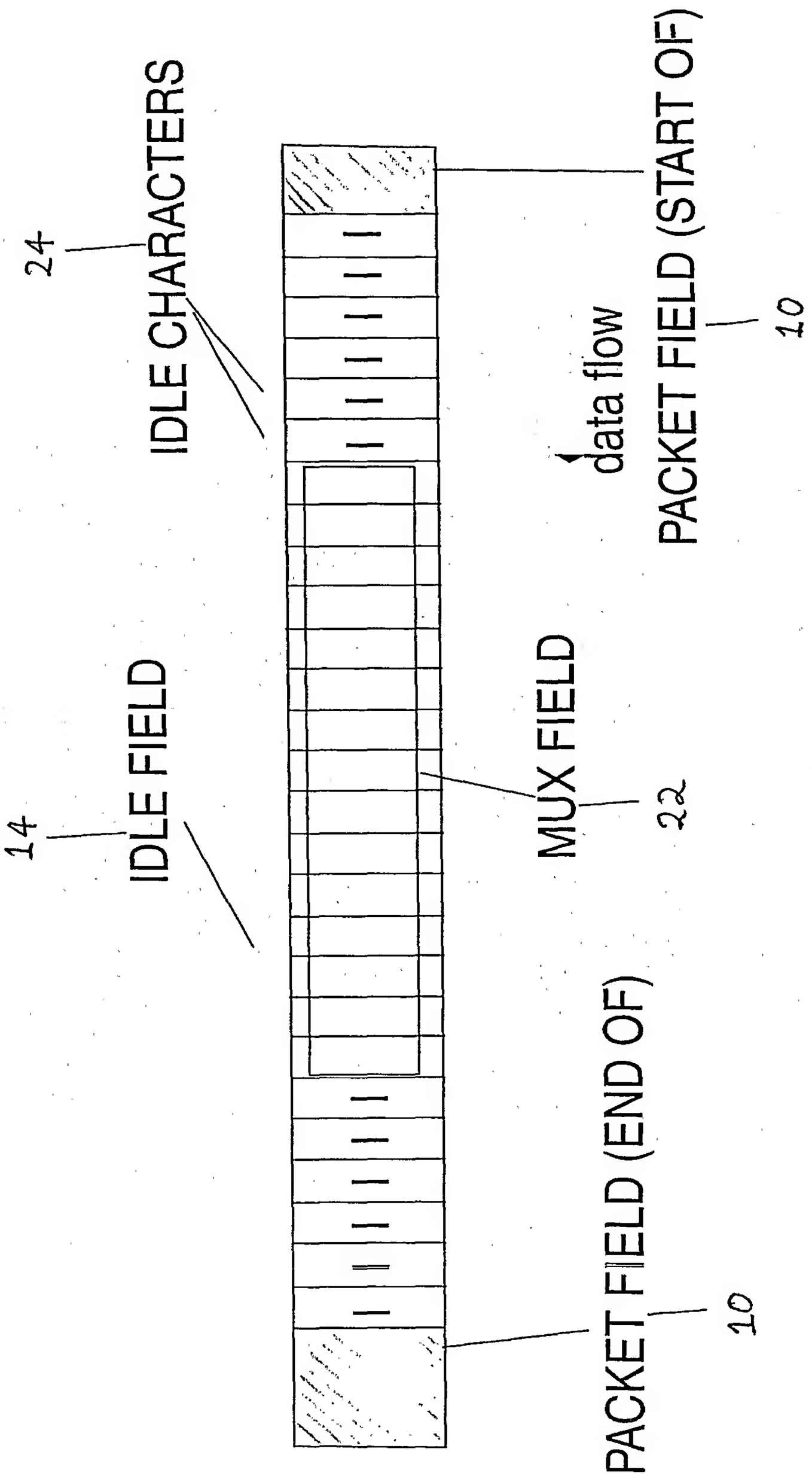

IDLE CHARACTERS
24
IDLE FIELD
14
MUX FIELD
22
PACKET FIELD (END OF)
10
data flow
PACKET FIELD (START OF)
10

Figure 5

Figure 6

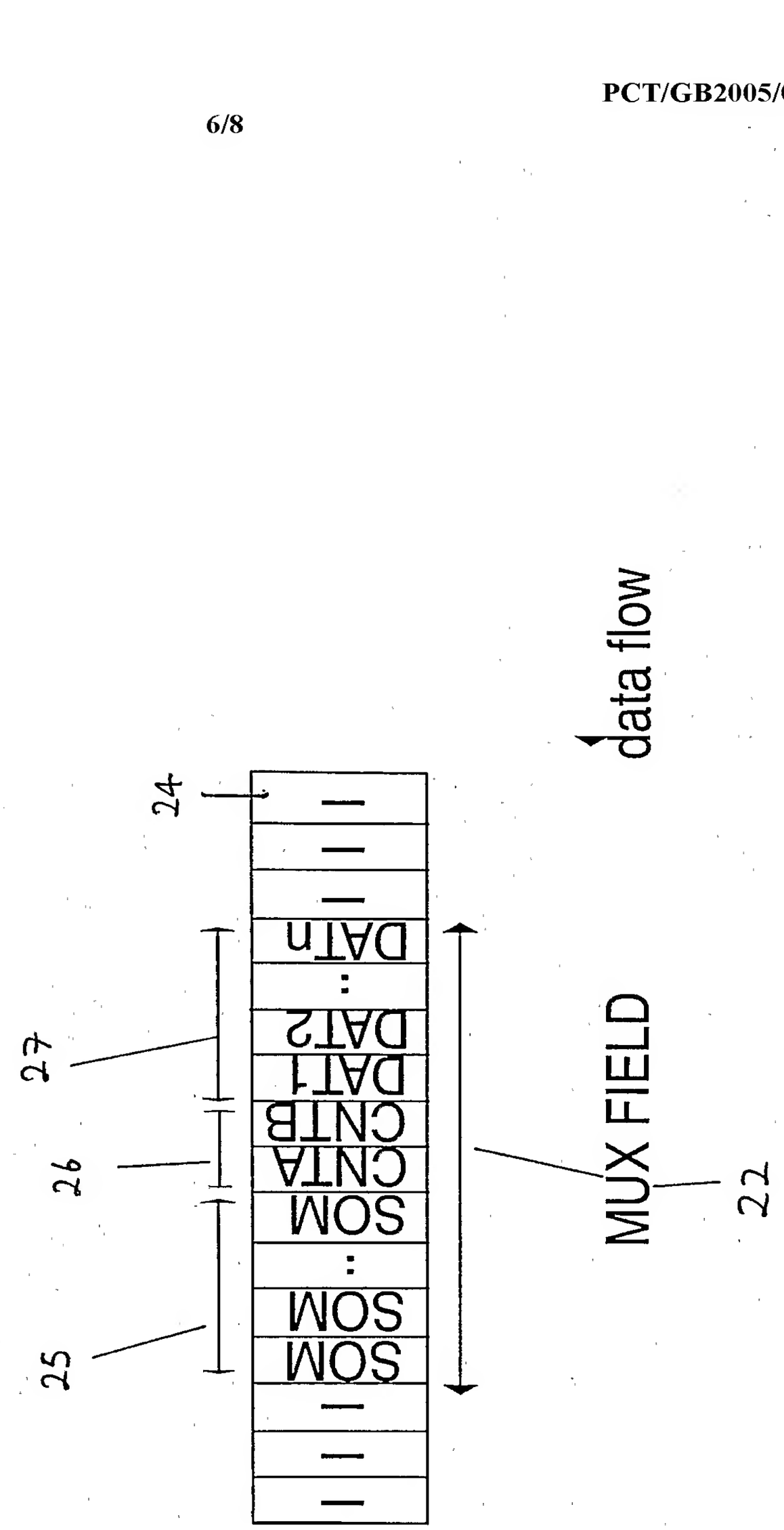

Data flow
24
27
26
25
DATn
DAT2
DAT1
CNTB
CNTA
SOM
SOM
SOM
MUX FIELD
22

Figure 7

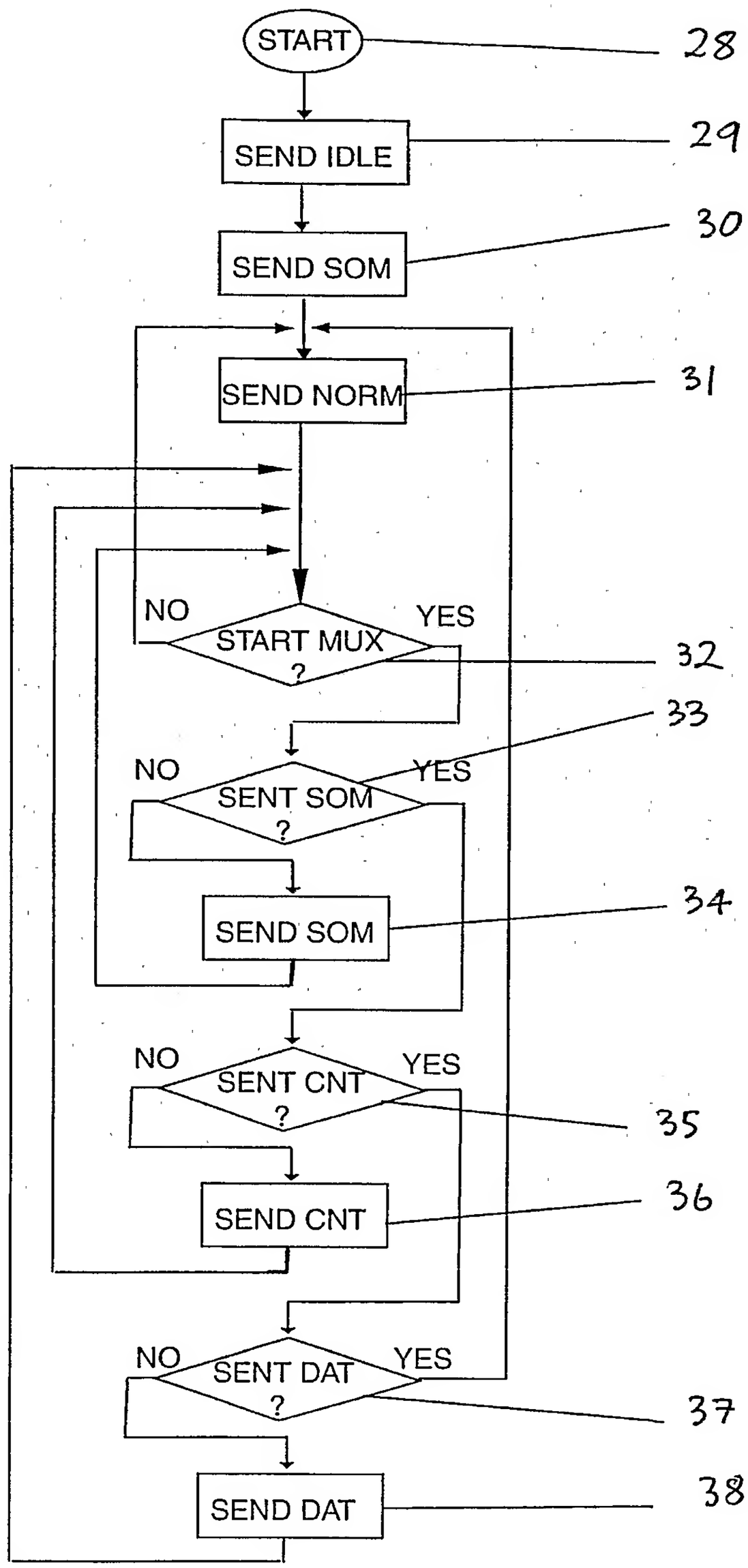
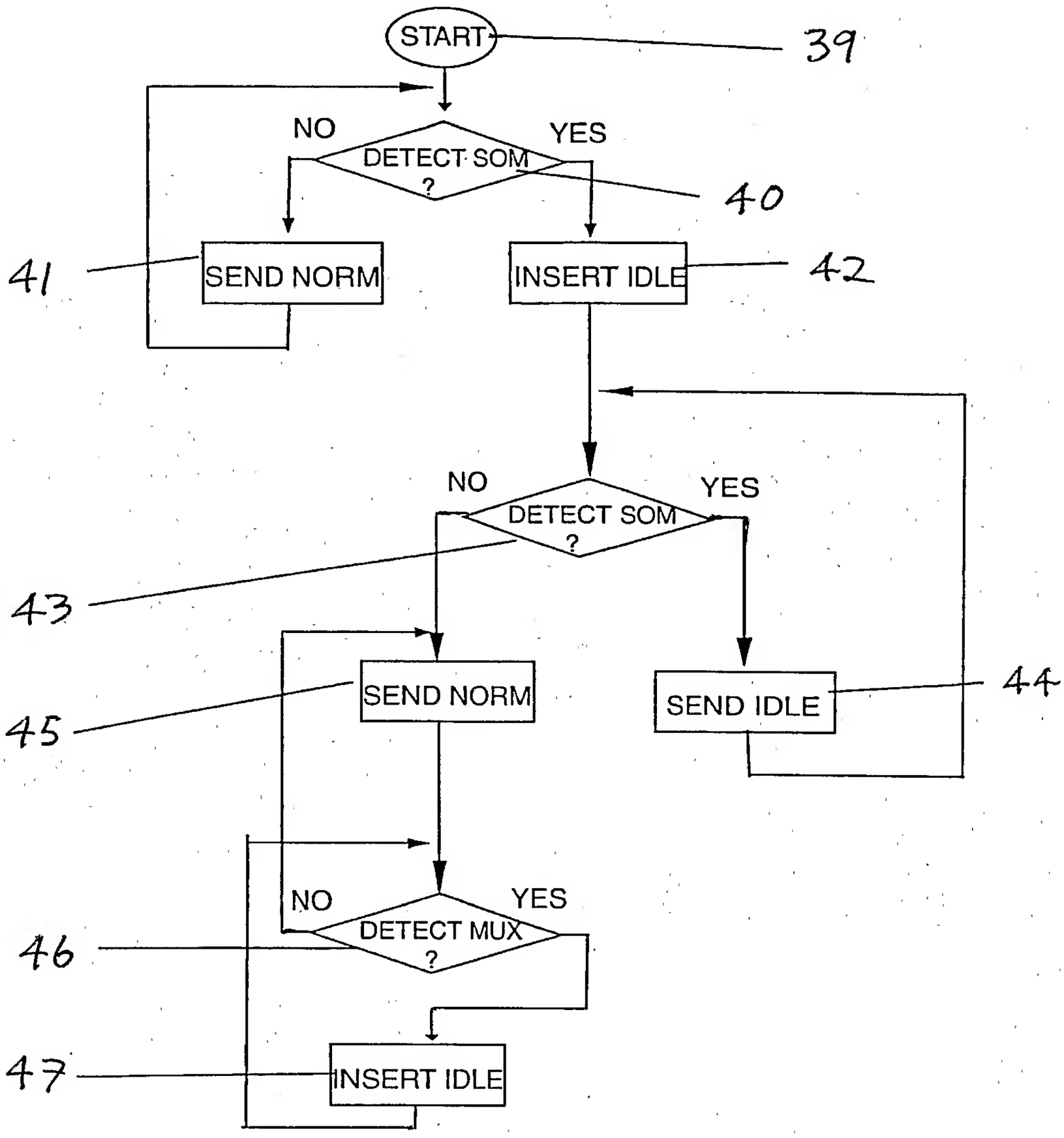

START
28
SEND IDLE
29
SEND SOM
30
SEND NORM
31
NO
YES
START MUX ?
32
NO
YES
SENT SOM ?
33
SEND SOM
34
NO
YES
SENT CNT ?
35
SEND CNT
36
NO
YES
SENT DAT ?
37
SEND DAT
38

Figure 8


START
39
NO
DETECT SOM ?
YES
40
41
SEND NORM
INSERT IDLE
42
NO
DETECT SOM ?
YES
43
45
SEND NORM
SEND IDLE
44
NO
DETECT MUX ?
YES
46
47
INSERT IDLE